

Taxonomic studies on the genus *Hoya* R. Br. (Asclepiadaceae: Marsdenieae) in Papuasia, 6¹

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Summary

Forster, Paul I. & Liddle, David J. (1993). Taxonomic studies on the genus *Hoya* R. Br. (Asclepiadaceae: Marsdenieae) in Papuasia, 6. *Austrobaileya* 4(1): 51–55. Two new species of *Hoya* from Papuasia (Irian Jaya, Papua New Guinea, Solomon Islands) are described, namely *Hoya dennisii* and *H. flavida*. Both are in cultivation, and the latter is widely known as *H. sp.* 'Mt Gallego'.

Keywords: Asclepiadaceae, *Hoya* – Papuasia, *Hoya dennisii*, *Hoya flavida*.

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Introduction

In this paper we continue our long-term taxonomic studies on the genus *Hoya* R. Br. in Papuasia (Forster & Liddle 1991, 1992). Terminology and format is consistent with the former papers. Two new species, namely *H. dennisii* and *H. flavida*, are described, ahead of accounts of the species groups in which they occur. Both these species are in cultivation and require names for identification and distribution of live material. *H. flavida* is widely known as *H. sp.* 'Mt Gallego'.

Taxonomy

Hoya dennisii P.I. Forster et D.J. Liddle, **sp. nov.** affinis *H. chloranthae* Rech. a qua venis secundariis laminae folii 3 vel 4 vix manifestis, floribus minoribus (16–17 mm in diametro), lobis corollae longioribus (circa 7 mm longis), et lobis coronae staminalis majoribus margine exteriori corollam excedentibus et apice labio obtuso producto differt. **Typus:** Solomon Islands, GUADALCANAL PROVINCE: Kwalo Range, Mt Gallego, eastern ridge, 7 July 1965, T.C. Whitmore R.S.S. 6073 (holo: L!; iso: A!, BSIP!, K!, LAE!).

Epiphytic coriaceous liane to several metres; latex white. Stems cylindrical, wiry, with sparse trichomes, becoming glabrous with age; internodes up to 100 mm long and 1 mm diameter. Leaves petiolate; lamina lanceolate-ovate, coriaceous, up to 72 mm long and 30 mm wide, discolorous, glabrous, venation obscure; upper surface dark green; lower surface pale green; tip acuminate; base rounded to cordate; petiole 5–7 mm long and c. 0.8 mm diameter, with scattered trichomes; colleters 2, at lamina base. Cyme racemiform, up to 100 mm long; peduncle up to 85 mm long and 0.5 mm diameter, glabrous or with scattered trichomes; bracts ovate, 0.5–0.6 mm long, 0.4–0.5 mm wide, glabrous. Flowers 2–3 mm long, 16–17 mm diameter; pedicels 30–35 mm long, c. 0.6 mm diameter, glabrous. Sepals lanceolate, c. 1.2 mm long and 0.6 mm wide, glabrous. Corolla flattened-campanulate, crimson-pink, externally glabrous, internally with short dense white trichomes; tube c. 5 mm long and 10 mm diameter; lobes triangular, c. 7 mm long and 7 mm wide. Staminal corona purple, c. 1.8 mm long and 4.5 mm diameter, inserted on column ± flush with corolla; lobes c. 3.2 mm long, 1.8 mm wide and 1.8 mm high, outer edge rounded and somewhat drawn out into a lip not higher than the style-head, inner edge acute. Staminal column c. 2 mm long and 2.5 mm diameter; anther appendages lanceolate, c. 0.8 mm long and 0.5 mm wide; alar fissure 1.0–1.1 mm long. Style-head depressed-globose, c. 0.8 mm diameter. Pollinaria

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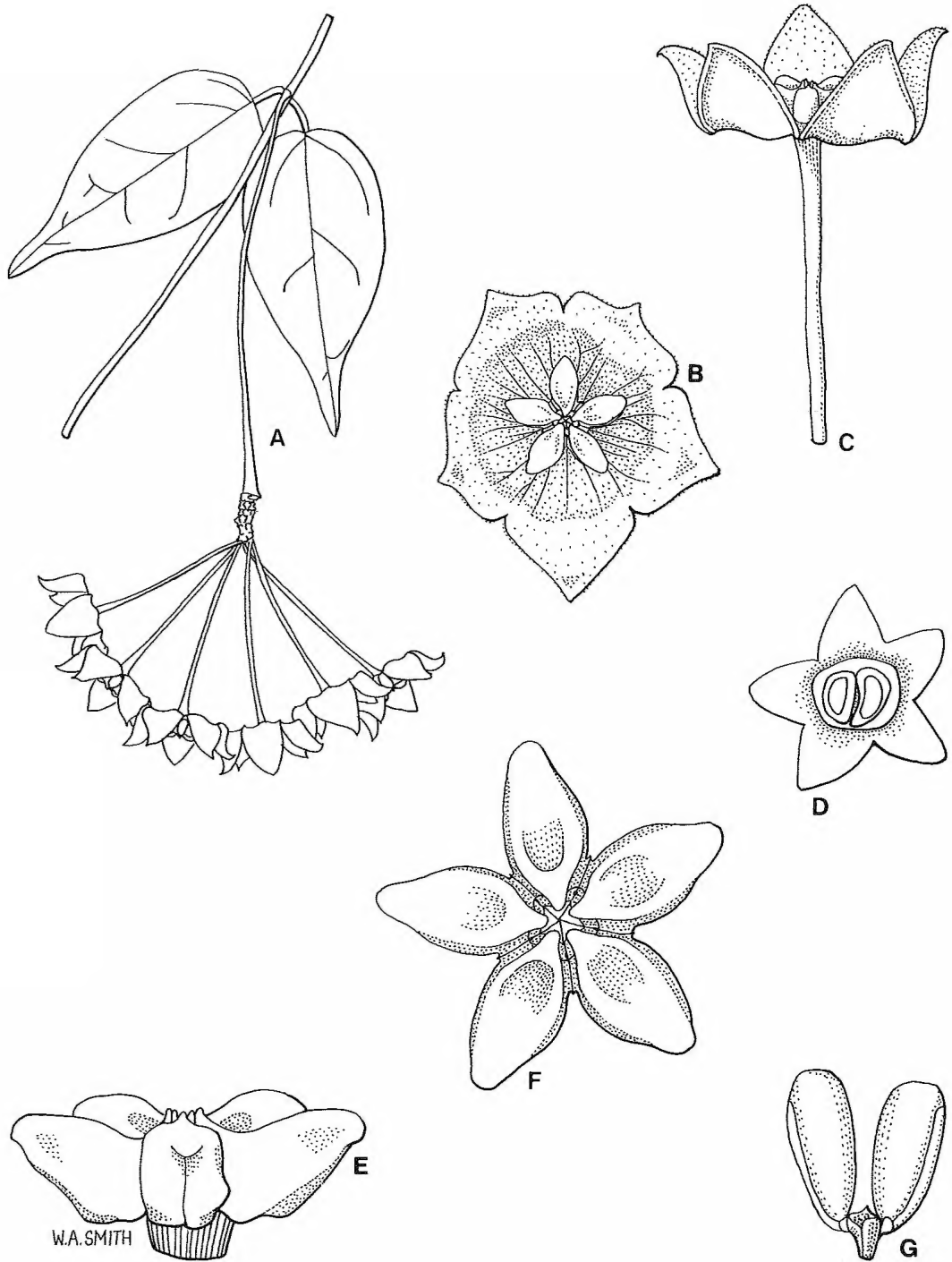


Fig. 1. *Hoya dennisii*: A. habit of flowering stem $\times 0.8$. B. face view of flower $\times 2$. C. side view of flower $\times 2$. D. face view of calyx and ovaries with corolla removed $\times 8$. E. side view of staminal corona $\times 6$. F. face view of staminal corona and column $\times 6$. G. pollinarium $\times 40$. A, Whitmore R.S.S. 6073; B–G, Forster 8714 & Liddle. Del. W. Smith.

c. 0.55 mm long and 0.46 mm wide; pollinia oblong, c. 0.46 mm long and 0.18 mm wide, with pellucid germination mouth on outer edge; corpusculum oblong-ovate, c. 0.14 mm long and 0.09 mm wide; caudicles unwinged, c. 0.09 mm long and 0.03 mm wide. Fruit and seed not seen. **Fig. 1.**

Specimens examined: Solomon Islands. GUADALCANAL PROVINCE: near Gold Ridge Village, 9°35'S, 160°07'E, Jun 1991, *Forster 8714 & Liddle* (BRI); Summit Mt Gallego, NW Guadalcanal, Sep 1966, *Dennis BSIP4630* (BSIP); Popomanasiu, Oct 1965, *Corner 156* (K).

Distribution and habitat: *H. dennisii* has been collected only on Guadalcanal where it grows in montane and submontane situations from 650 to 1200 m altitude, usually as an epiphyte in bryophyte mats in rainforest.

Notes: *H. dennisii* belongs to a group of small, wiry stemmed, coriaceous to herbaceous leaved Hoyas that occur in upper montane areas in Papuasia and Melanesia. The group includes *H. venusta* Schltr. in New Guinea and *H. chlorantha* Rech. in Samoa. *H. dennisii* is probably most closely related to *H. chlorantha* but differs from that species in the just visible 3 or 4 secondary veins in the leaf lamina, the smaller flowers 16–17 mm in diameter with longer corolla lobes c. 7 mm long and the larger staminal corona lobes in which the outer edge is raised above the corolla and drawn out into a blunt lip.

Etymology: It gives us much pleasure to name this new species for Geoff Dennis of Honiara, Guadalcanal, former Government Botanist and long-time resident in the Solomon Islands, a plantsman of high repute with a garden of tropical delights. Geoff has been responsible for introducing many of the Hoyas from the Solomon Islands into general cultivation.

Hoya flavida P.I. Forster et D.J. Liddle, **sp. nov.** affinis *H. anulatae* Schltr. a qua foliis succulentioribus, corolla campanulatirotata lutea vel flavida lobis ovatis, et lobis coronae staminalis margine exteriore rotundato differt. **Typus:** cultivated at Emerald Creek near Mareeba (ex plant collected on Mt Gallego, Guadalcanal Province, Solomon Islands), 24 February

1992, *D.J. Liddle* IML118 (holo: BRI (1 sheet + spirit)).

Epiphytic fleshy vine to several metres long, latex white. Stems cylindrical, glabrous; internodes up to 120 mm long and 2.5 mm diameter. Leaves glabrous, petiolate; lamina elliptic-ovate, up to 140 mm long and 45 mm wide, discolorous, secondary veins 4 per side of midrib just visible on both surfaces, tertiary venation obscure; upper surface dark green; lower surface pale green; tip acute to short acuminate; base cuneate; petiole grooved along top, 10–12 mm long and c. 1.5 mm diameter; colleters 2, at lamina base. Cyme umbelliform to racemiform, up to 140 mm long; peduncle up to 135 mm long and 1.5 mm diameter, glabrous; bracts ovate, 0.3–0.4 mm long, 0.3–0.4 mm wide. Flowers 3–4 mm long, 10–15 mm diameter; pedicels 15–22 mm long, c. 1 mm diameter, glabrous. Sepals lanceolate, 1.2–1.4 mm long, 0.5–0.6 mm wide, glabrous. Corolla campanulate-rotate, yellow to yellow-pink, externally glabrous, internally with dense short white trichomes that are uniformly distributed except for on the lobe edges where slightly denser but not forming a conspicuous band; tube 3–4 mm long, 7–8 mm diameter; lobes ovate, 5–5.5 mm long, 4.5–5 mm wide. Staminal corona 2.8–3 mm long, 5.5–5.8 mm diameter, inserted on column ± flush with corolla, yellow-pink; each lobe c. 2.5 mm long, 2.5–2.8 mm high, 1.3–1.5 mm wide, outer edge somewhat rounded-obtuse and not upraised above the level of the style-head, inner edge acute. Staminal column c. 2 mm long and 2.5 mm diameter; anther appendages lanceolate, c. 0.8 mm long and 0.5 mm wide; alar fissure c. 1 mm long. Style-head c. 1 mm diameter. Pollinaria c. 0.32–0.36 mm long, 0.27–0.32 mm wide; pollinia oblong, 0.29–0.33 mm long, 0.12–0.13 mm wide, with pellucid germination mouth on outer edge; corpusculum oblong, 0.09–0.11 mm long, 0.05–0.06 mm wide; caudicles winged, c. 0.09 mm long and 0.05 mm wide. Fruit and seed not seen. **Fig. 2.**

Specimens examined: Papua New Guinea. BOUGAINVILLE PROVINCE: South slopes of Crown Prince Range, Apr 1936, *Voyce D2* (K). **Cultivated.** cultivated at Emerald Creek near Mareeba (ex plant collected on Mt Gallego, Guadalcanal Province, Solomon Islands), Feb 1992, *Liddle* IML423 (BRI).

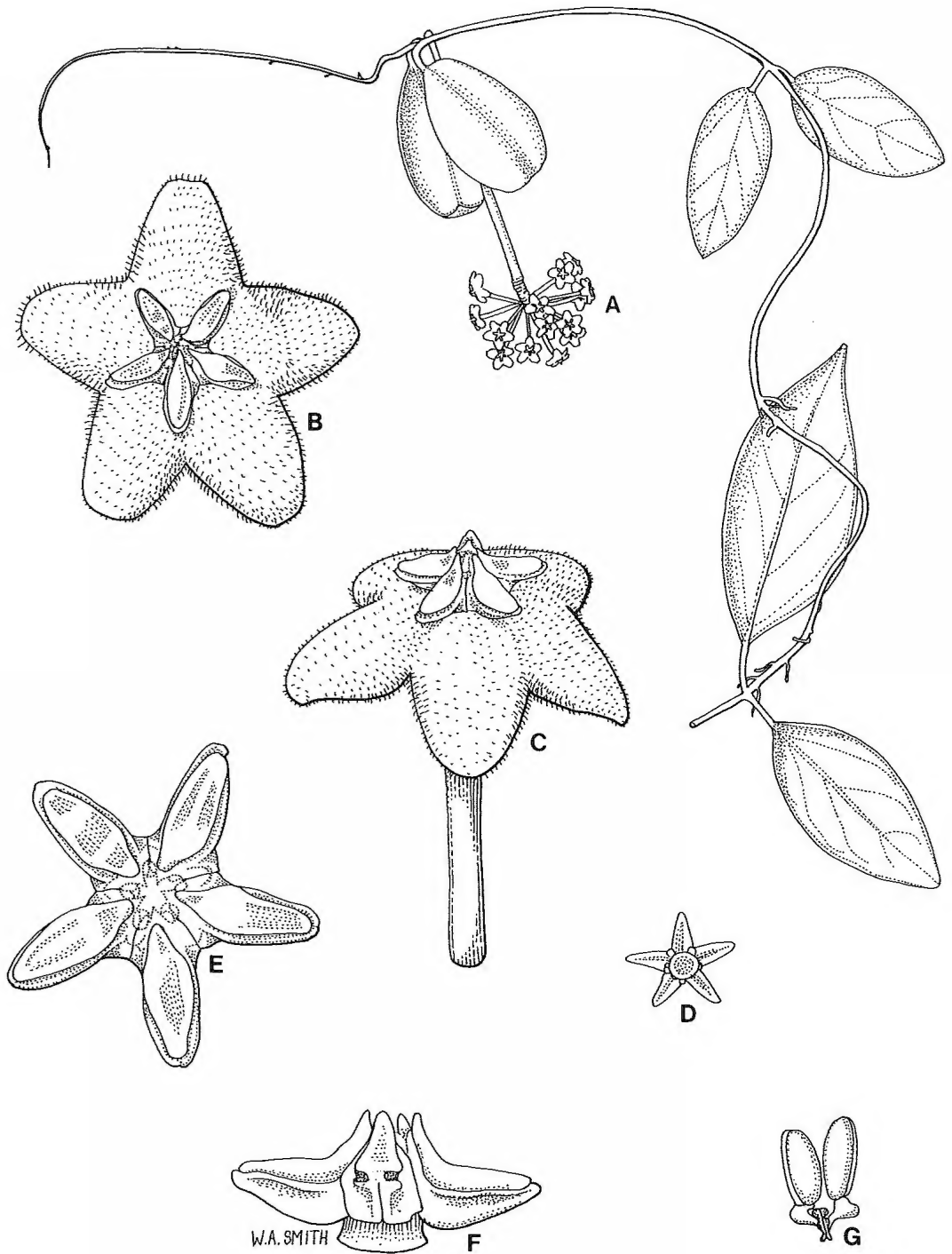


Fig. 2. *Hoya flavida*: A. habit of flowering stem $\times 0.5$. B. face view of flower $\times 4$. C. side view of flower $\times 4$. D. calyx $\times 4$. E. face view of staminal corona and column $\times 8$. F. side view of staminal corona and column $\times 8$. G. pollinarium $\times 40$. All from Liddle IML118. Del. W. Smith.

Distribution and habitat: Known only from Bougainville and Guadalcanal Islands in the Solomon Islands chain. Plants occur as epiphytes in lowland rainforest. In addition to the plants in cultivation from Mt Gallego, we have also collected plants from the Lungga River area on Guadalcanal that are probably referable to this species; however, they have yet to flower for us to be sure.

Notes: *H. flavida* is a free flowering plant that is now reasonably well spread in cultivation as *H. sp.* 'Mt Gallego'. It is probably allied to *H. anulata* Schltr. from mainland New Guinea and Australia (Forster & Liddle 1990, 1992) but differs from that species in the more succulent leaves, the yellow or yellowish campanulate-rotate corolla with ovate lobes; and the staminal corona lobes with rounded outer edges.

Etymology: The specific epithet alludes to the yellowish corollas.

Acknowledgements

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